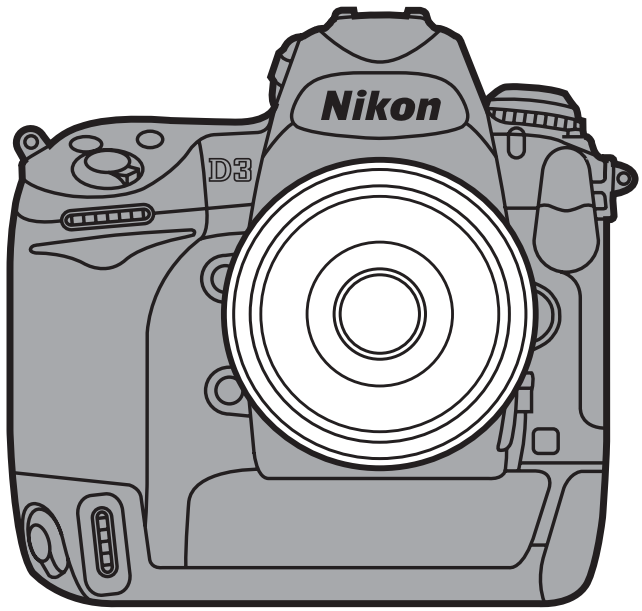
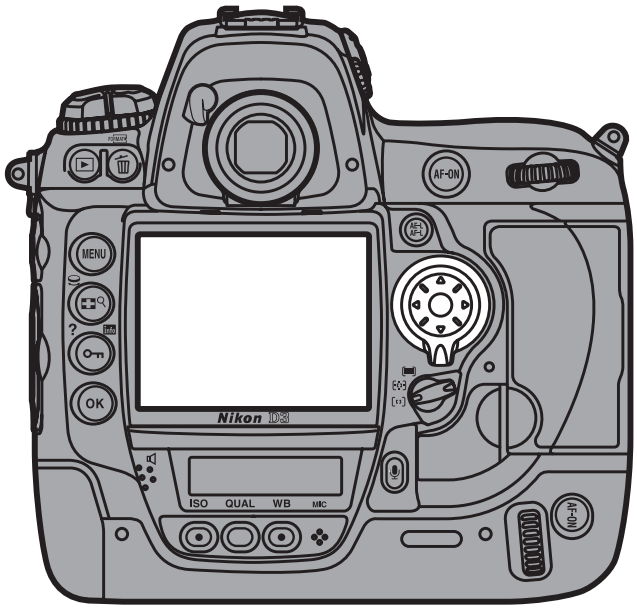
Nikon



D3 Professional Technical Guide



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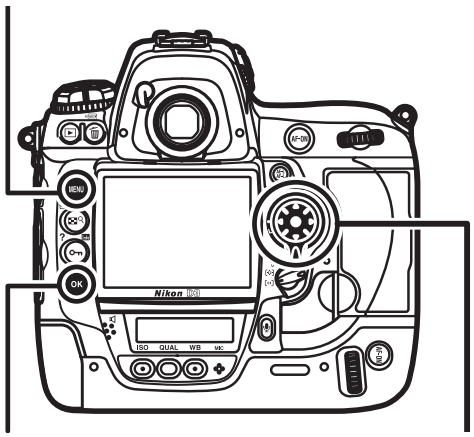
Using the Menus

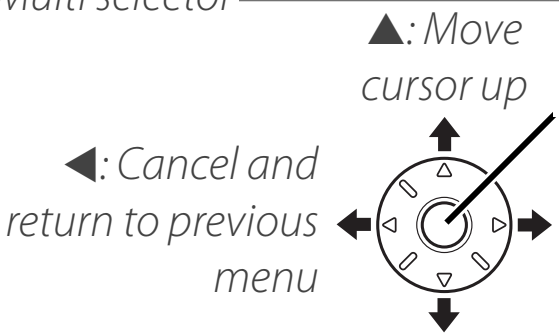
Use the MENU button, OK button, and multi selector to navigate the menus.

MENU button



OK button

Multi selector

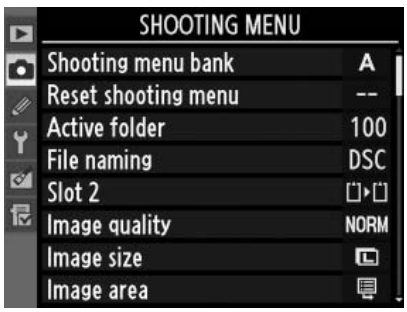

▲: Move cursor up
Center: Select highlighted item
◀: Cancel and return to previous menu
▶: Select highlighted item or display sub-menu
▼: Move cursor down

1 ***Display the menus.***

Press the MENU button to display the menus.

2 ***Highlight the icon for the current menu.***

Press ◀ to highlight the icon for the current menu.



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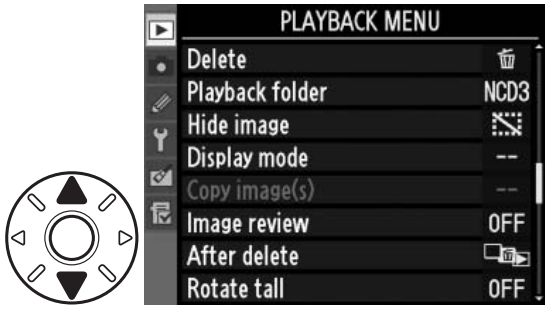
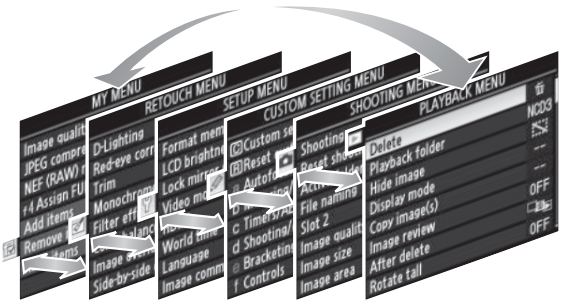
3 *Select a menu.*

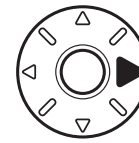
Press ▲ or ▼ to select the desired menu.





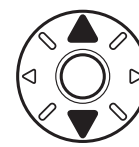
4 *Position the cursor in the selected menu.*

Press ▶ to position the cursor in the selected menu.



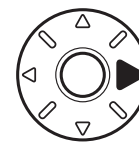
5 *Highlight a menu item.*

Press ▲ or ▼ to highlight a menu item.



6 *Display options.*

Press ▶ to display options for the highlighted menu item.



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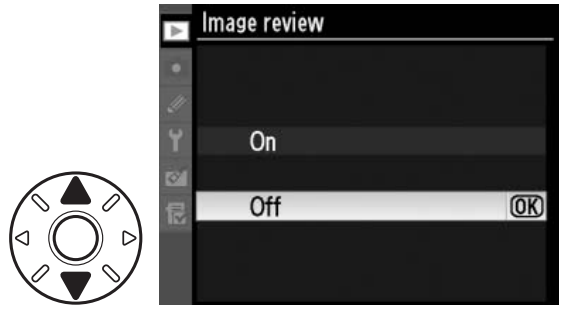
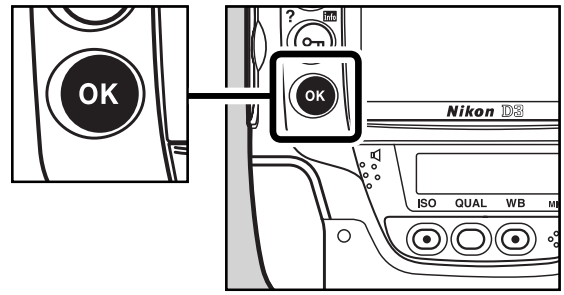
7 ***Highlight an option.***

Press ▲ or ▼ to highlight an option.



8 ***Select the highlighted item.***

Press ⊛ to select the highlighted item (some items can also be selected by pressing ▶). To exit without making a selection, press the MENU button.



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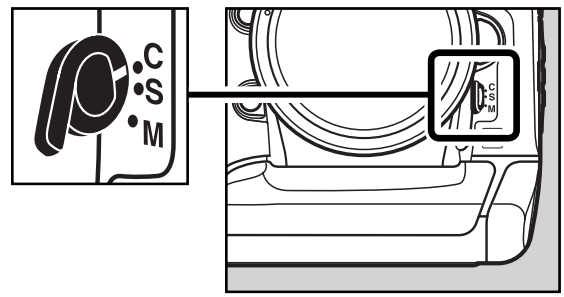
Autofocus: Focusing with Autofocus

The **a Autofocus** group in the first level of the Custom Settings menu contains a variety of advanced autofocus options. This chapter details options that can be used to frame moving subjects at sporting events: a1 (**AF-C priority selection**), a3 (**Dynamic AF area**), and a4 (**Focus tracking with lock-on**). These options are best used with the focus mode selector rotated to **C** (continuous-servo AF) and the AF-area mode selector rotated to [•] (dynamic-area AF).

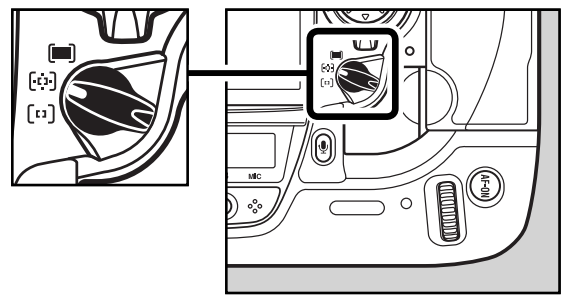
1 ***Select continuous-servo AF.***

Rotate the focus-mode selector to **C**. The camera will continually adjust focus while the shutter-release button is pressed halfway.



2 ***Select dynamic-area AF.***

Rotate the AF-area mode selector to [•] (dynamic-area AF). If the subject briefly leaves the selected focus point, the camera will focus based on information from surrounding focus points.



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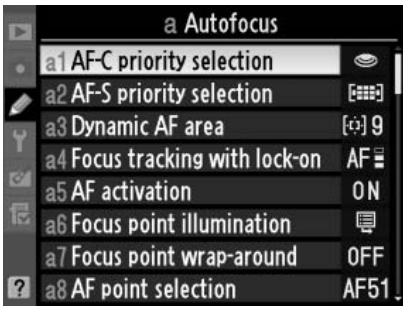
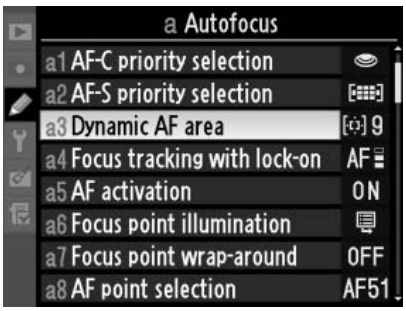
3 Choose an option for Custom Setting a1.

Choose whether the camera gives priority to focus or to shutter response in focus mode **C**.


a Autofocus
a1 AF-C priority selection
a2 AF-S priority selection
a3 Dynamic AF area 9
a4 Focus tracking with lock-on AF
a5 AF activation ON
a6 Focus point illumination
a7 Focus point wrap-around OFF
a8 AF point selection AF51

4 Choose an option for Custom Setting a3.

Choose the number of focus points used for dynamic-area AF. Select **9 points** or **21 points** for track-and-field events or for subjects that move unpredictably.


a Autofocus
a1 AF-C priority selection
a2 AF-S priority selection
a3 Dynamic AF area 9
a4 Focus tracking with lock-on AF
a5 AF activation ON
a6 Focus point illumination
a7 Focus point wrap-around OFF
a8 AF point selection AF51

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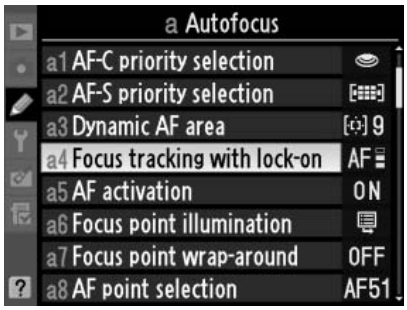
5 *Choose an option for Custom Setting a4.*

Choose how quickly the camera responds when an object moves between the subject and the camera.



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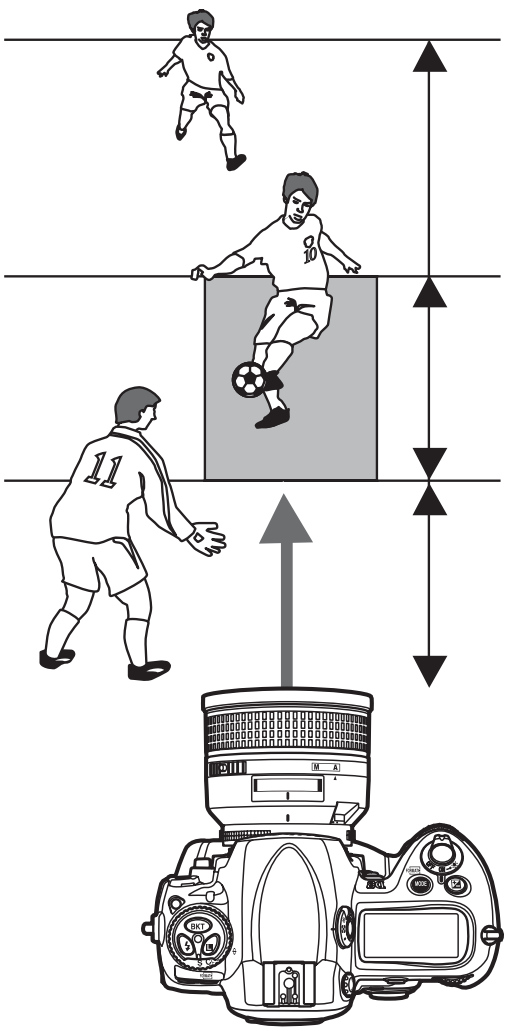
Focus Tracking with Lock-On

Focus tracking with lock-on controls how the camera responds to abrupt changes in focus distance. It can be used to prevent the camera from immediately refocusing when objects move through the space between the subject and the camera, ensuring that the camera will continue to track the main subject once the obstacle has moved away. Choose the length of time before the camera refocuses from **Long**, **Normal**, and **Short**.



Camera will wait before refocusing on objects behind the subject

Camera will track and focus on objects the same distance from the camera as the subject

Camera will wait before refocusing on objects behind the subject

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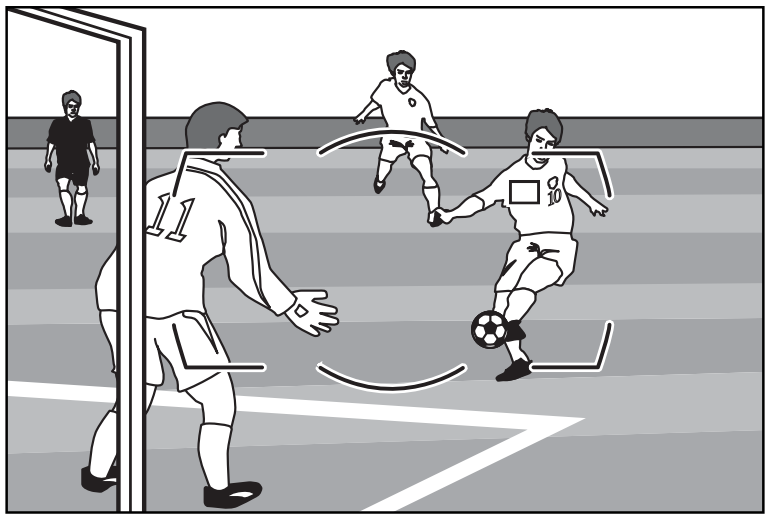
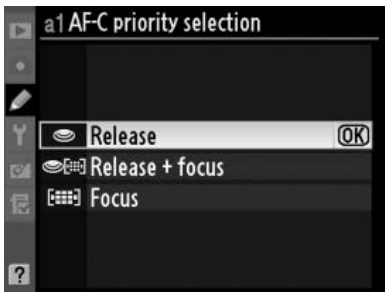
Example 1

Behind the Goal

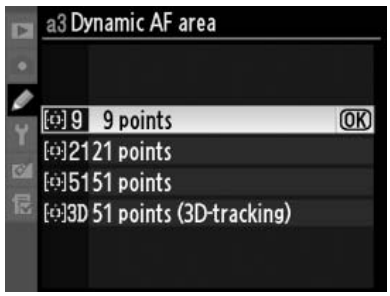
Photographers positioned behind the goal at a soccer match are faced with subjects that move unpredictably and that may be intermittently obscured by objects coming between the subject and the camera during framing.



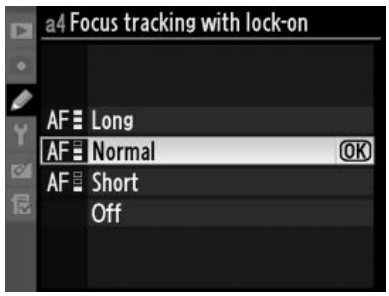
Choose the following focus options:



AF-C priority selection: **Release**



Dynamic AF area: **9 points** *or* **21 points**



Focus tracking with lock-on: **Normal**

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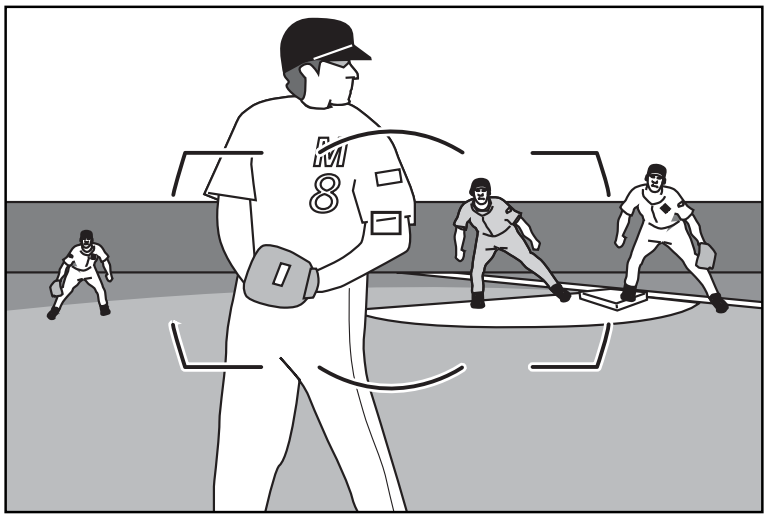
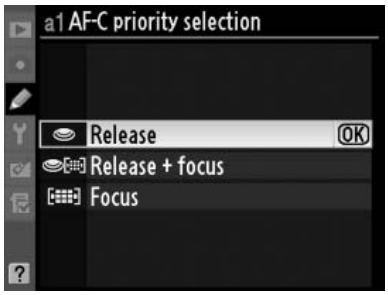
Example 2

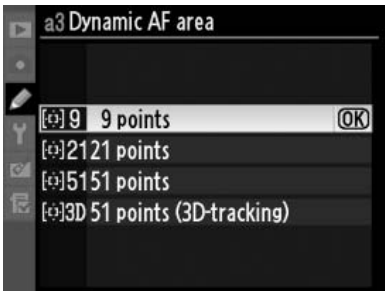
Pitcher or Runner?

Choose lower lock-on times for improved focus response when you may have to switch quickly between subjects at different distances from the camera.

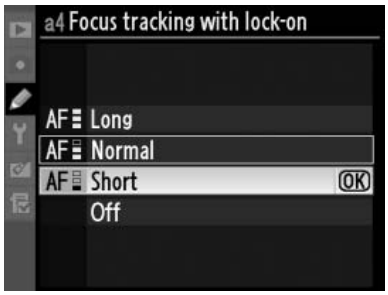




AF-C priority selection: **Release**



Dynamic AF area: **9 points** *or* **21 points**



Focus tracking with lock-on: **Short** *or* **Off** *(note that* **Off** *reduces effectiveness of dynamic-area AF)*

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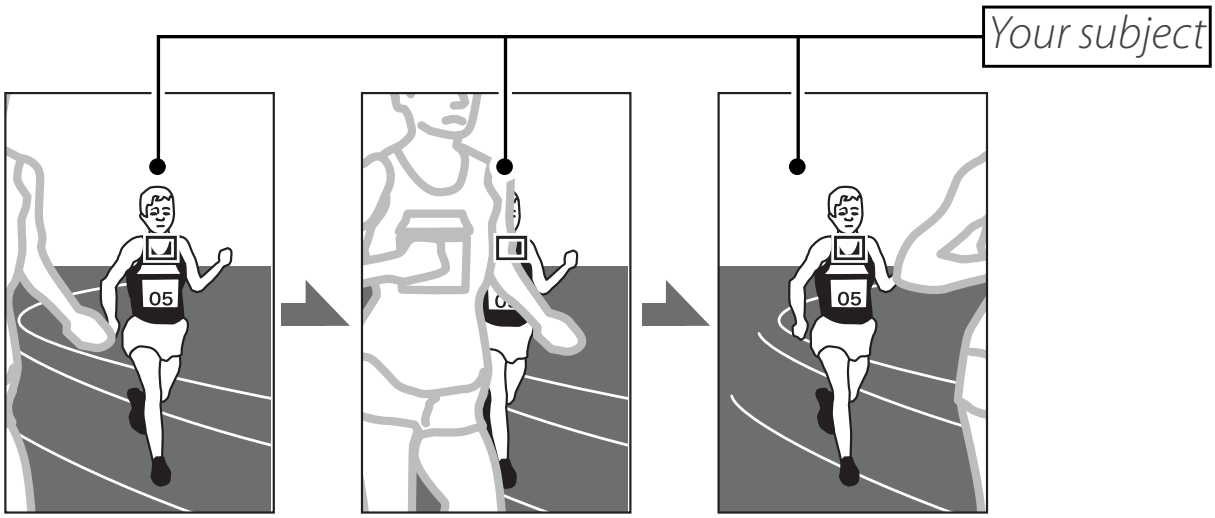
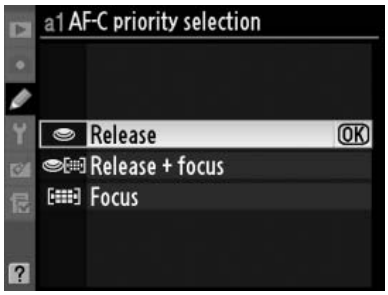
Example 3

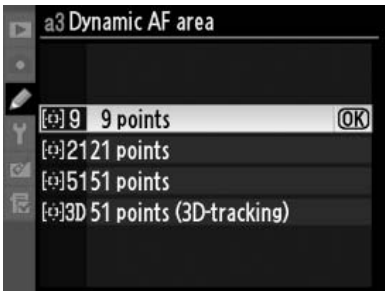
The Inside Track

Choose longer lock-on times when photographing a runner on the inside track or in other situations in which your subject may be blocked for relatively long periods.





AF-C priority selection: **Release**



Dynamic AF area: **9 points** *or* **21 points**

Focus tracking with lock-on: **Long**

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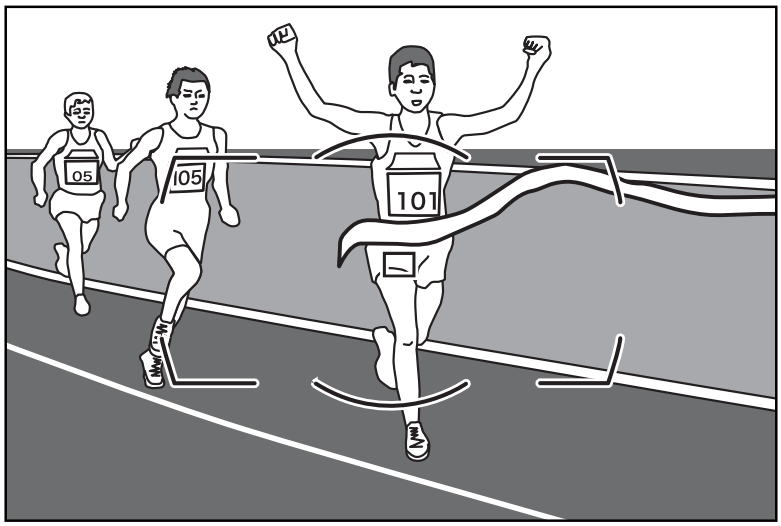
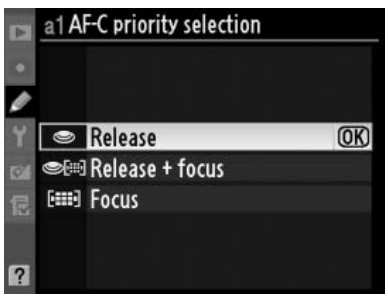
Example 4

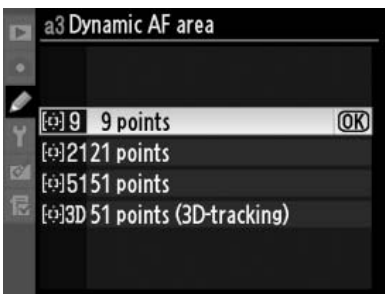
At the Finish Line

Selecting **Release** for Custom Setting a1 ensures a quick shutter response and faster frame advance rates.

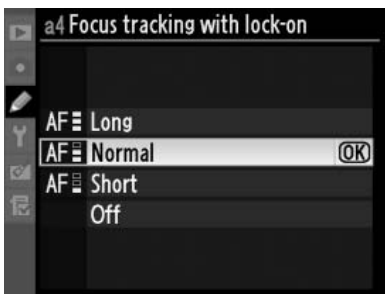




AF-C priority selection: **Release**



Dynamic AF area: **9 points** *or* **21 points**



Focus tracking with lock-on: **Normal**

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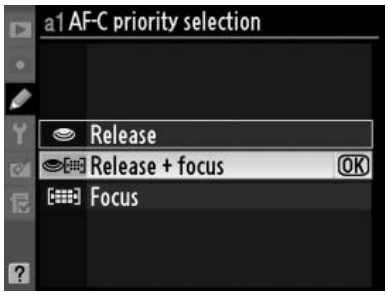
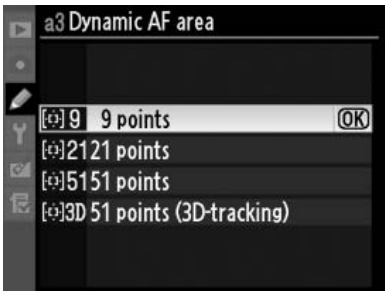
Example 5

Poor Lighting or Bad Weather

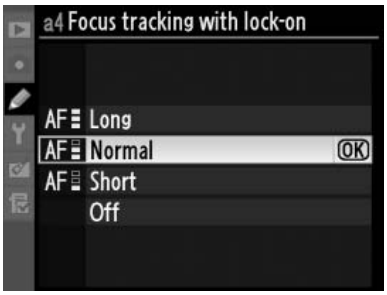
Select **Release + Focus** for quick shutter response while slowing frame advance rates in continuous release mode for improved focus with scenes that are poorly lit or low contrast.



AF-C priority selection: **Release + Focus**



Dynamic AF area: **9 points** *or* **21 points**



Focus tracking with lock-on: **Normal**

Note: If **Focus** is selected for Custom Setting a1, the shutter can only be released when the camera is in focus.

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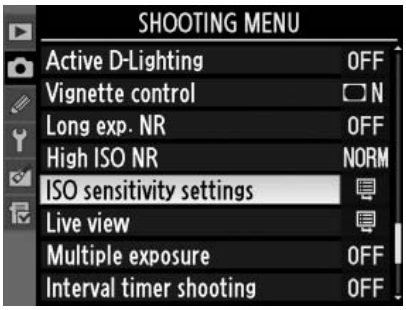
Exposure: Auto ISO Sensitivity Control

If **On** is selected for **ISO sensitivity** > **ISO sensitivity auto control** in the shooting menu, the camera automatically adjusts ISO sensitivity if optimal exposure can not be achieved at the minimum shutter speed selected by the user. An example of how to use this feature appears on the pages that follow.



Notes

Auto ISO sensitivity control is available in modes **P**, **S**, and **A**. Matrix metering is recommended. Note that camera firmware version A 1.10/B 1.11 or later is required for minimum shutter speeds faster than 1/250 s.

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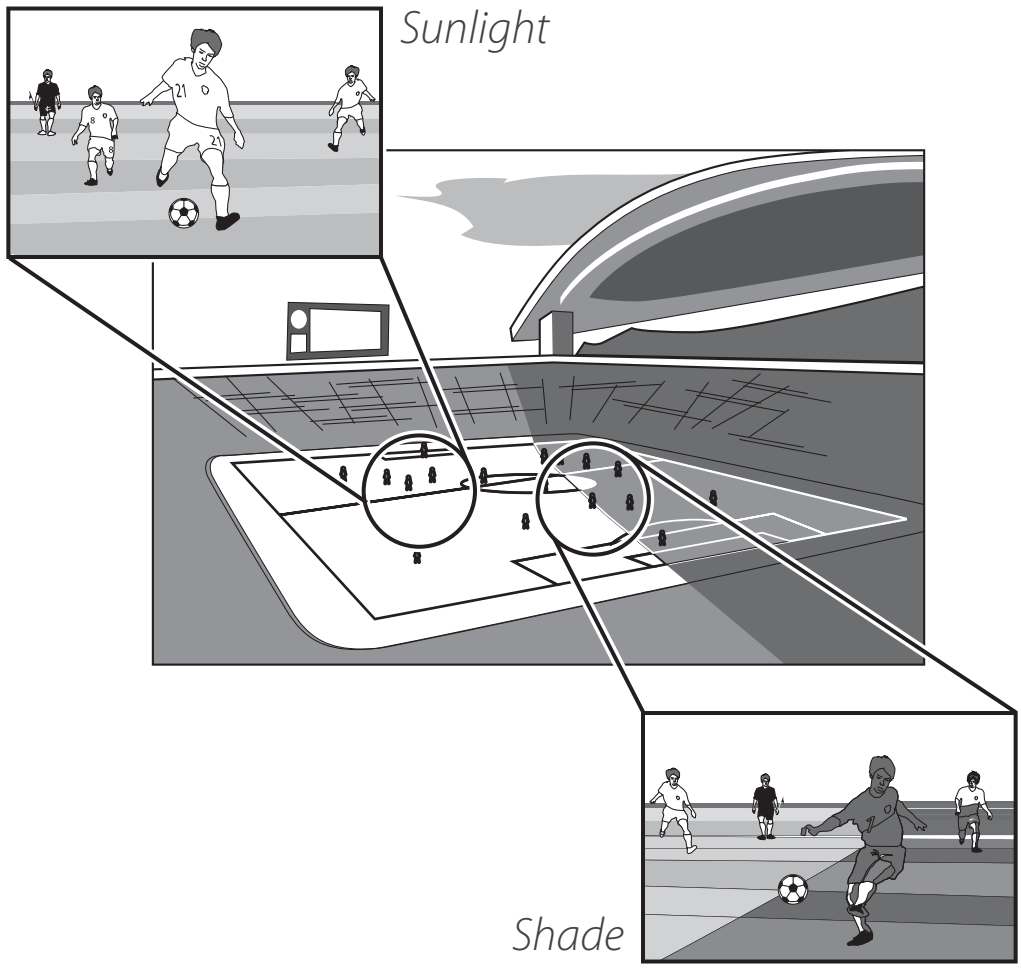
Example 6

A Daytime Stadium Match

Auto ISO sensitivity control is ideal for scenes with large variations in brightness.



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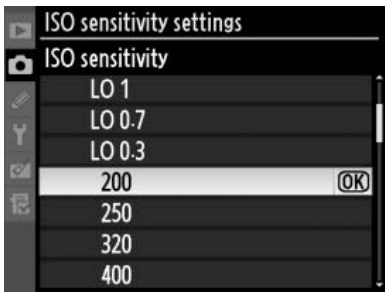
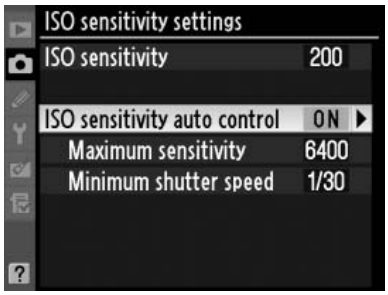
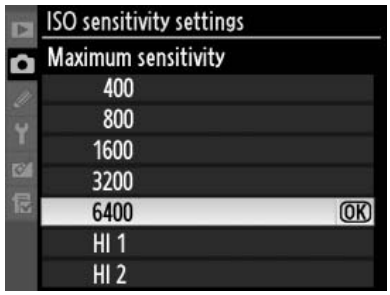
Choose the following ISO sensitivity settings:



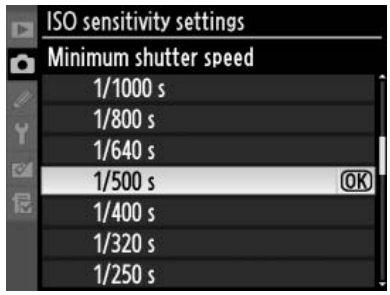
ISO sensitivity: 200



ISO sensitivity auto control: On



Maximum sensitivity: 6400



Minimum shutter speed: 1/500 s

In this example, ISO sensitivity will automatically be raised to a maximum of ISO 6400 if optimal exposure can not be achieved at ISO 200. In modes **P** and **A**, sensitivity will be raised only if the shutter speed required for optimal exposure would be slower than 1/500 s (slower speeds will be used if a speed of 1/500 s would still result in underexposure at ISO 6400).

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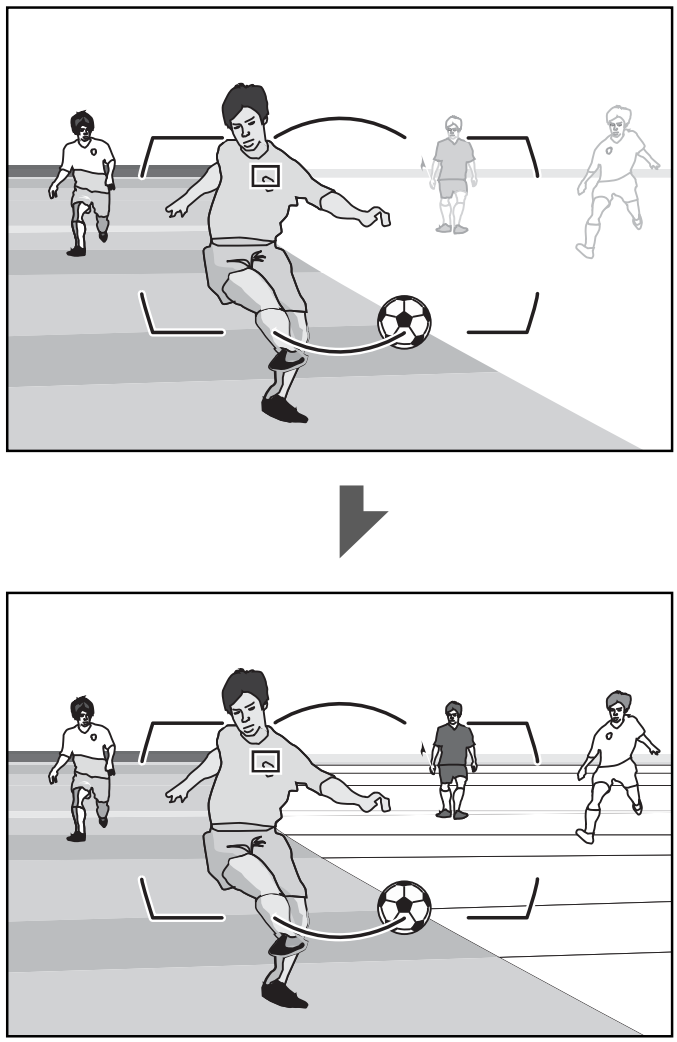
Exposure: Active D-Lighting (ADL)

Active D-Lighting preserves details in highlights and shadows, creating photographs with natural contrast.

Example 7

A Daytime Stadium Match Revisited

Use Active D-Lighting for compositions that include areas of sharply contrasting brightness.



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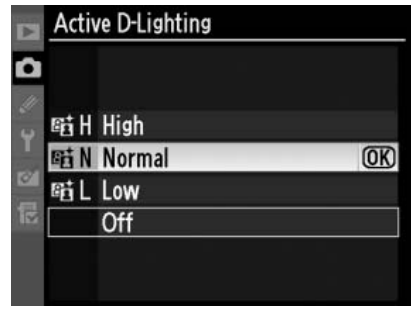
The following settings are recommended:



Active D-Lighting	**High** or **Normal**
Metering	Matrix[1]
Exposure mode	P, S, or A[2]
ISO sensitivity	ISO 1600 or less[3]
Memory card	UDMA-compliant memory card[4]

1. Active D-Lighting will not produce the desired effect when used with center-weighted or spot metering.
2. Active D-Lighting has no effect in exposure mode M.
3. Noise may be more noticeable in photographs taken at higher values.
4. Choose cards with faster write times for quicker processing when taking large numbers of photographs.

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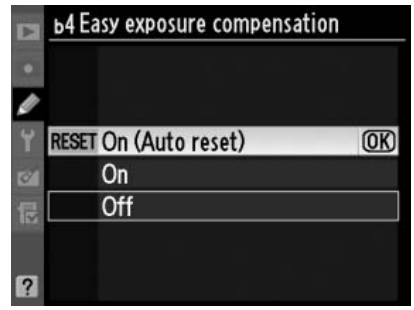
Exposure: Easy Exposure Compensation



When **On** or **On (Auto reset)** is selected for Custom Setting b4 (**Easy Exposure Compensation**), exposure compensation can be set simply by rotating a command dial (at default settings, the sub-command dial is used for easy exposure compensation in exposure modes P and S, and the main command dial is used in exposure mode A). If **On (Auto reset)** is selected, exposure compensation will automatically be reset to 0 when the camera is turned off.

Notes

Auto reset also resets exposure compensation when the exposure meters turn off. The length of time the exposure meters remain on is controlled with Custom Setting c2 (**Auto meter-off delay**).

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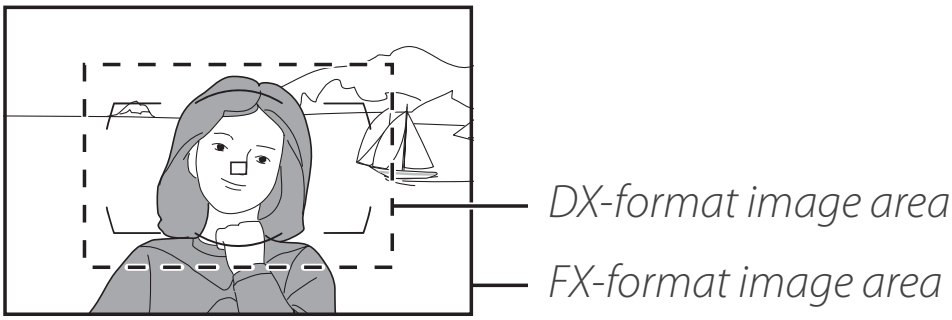
Image Quality: FX and DX Formats

At default settings, image quality is not automatically adjusted when you switch between FX and DX image areas. As a result, pictures taken using the smaller DX image area will not be the same quality as FX-format images when printed at the same size. From camera firmware version A 2.00/B 2.00 or later, you can automatically switch image quality settings when you switch between FX and DX formats:

① Create one shooting menu bank for FX format and a second shooting menu bank with higher image quality and size settings for DX format.

② Select **Shooting menu bank** for Custom Setting f4 (**Assign FUNC. button**) > **FUNC. button + dials**. You can then use the **Fn** button and command dials to switch instantly between the two banks.



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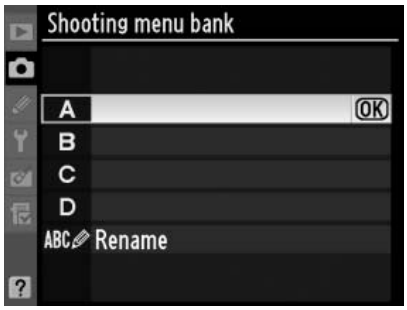
1 *Choose shooting menu bank A.*

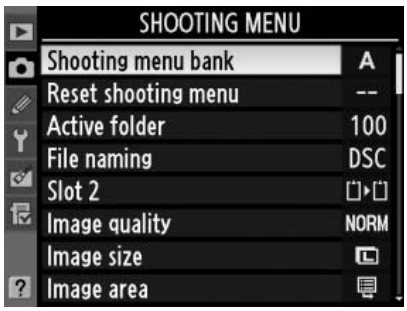
In the shooting menu, select **Shooting menu bank**. Highlight bank **A** and press ⓚ.



2 *Adjust settings for shooting menu bank A.*

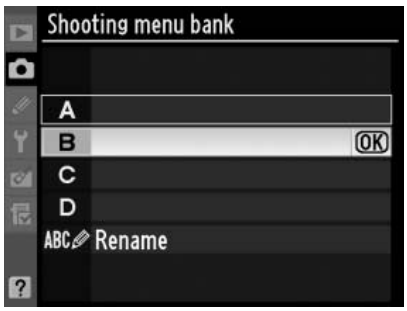
Sample settings are listed below:

- **Image quality**: JPEG basic
- **Image size**: M
- **Image area**: FX format (36×24)



3 *Choose shooting menu bank B.*

In the shooting menu, select **Shooting menu bank**. Highlight bank **B** and press ⓚ.



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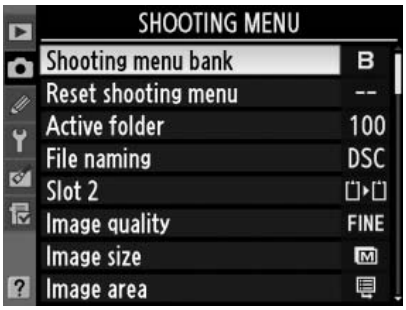
4 *Adjust settings for shooting menu bank B.*

Sample settings are listed below:

- **Image quality**: JPEG fine
- **Image size**: L
- **Image area**: DX format (24 × 16)

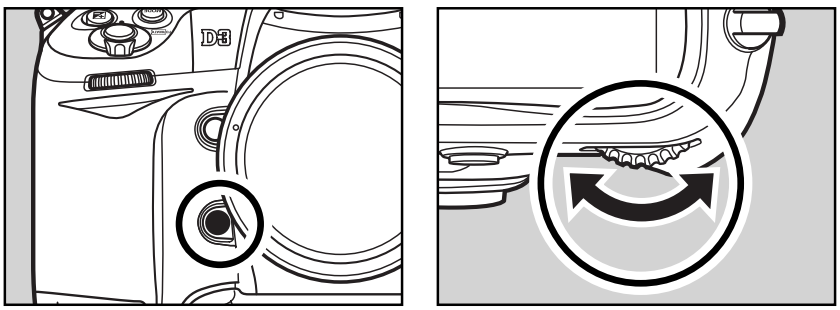


5 *Choose the role of the* **Fn** *button.*

In the Custom Settings menu, select Custom Setting f4 (**Assign FUNC. button**) > **FUNC. button + dials**. Highlight **Shooting menu bank** and press OK.

6 *Switch between shooting menu banks.*

Press the **Fn** button and rotate a command dial to cycle through shooting menu banks as shown below.



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Notes

Shooting menu bank can also be assigned to the "button + dials" options for Custom Settings f5 (**Assign preview button**) and f6 (**Assign AE-L/AF-L button**).

Apart from image quality, image size, and image area, settings for banks A and B should be identical. Any changes to bank A should also be made to bank B. Note that although separate Picture Controls may be selected for each bank, modifications to Picture Control settings (including quick adjust and other manual adjustments) and changes to **Interval timer shooting** and **Multiple exposure** apply to all banks.

If the settings in bank C are the same as bank A and those in bank D the same as bank B, you will be able to identify the selected image area by the crop displayed in the viewfinder.

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Frame Rate (Continuous High-Speed Release Mode)

Although maximum frame advance rate when FX format is selected for image area is fixed at 9 fps, the maximum frame rate for DX format can be selected from 9, 10, and 11 fps using Custom Setting d2 (**Shooting speed**). Note that at settings of 10 and 11 fps, focus will be fixed at the setting for the first photograph in each series, and exposure may be fixed at the value for the first photograph in each series if the subject is poorly lit.

Shooting Menu Banks

The camera has four shooting menu banks (A, B, C, and D). Different combinations of shooting menu settings can be stored in different banks, allowing the user to switch instantly from one combination to another using the **Shooting menu bank** option in the shooting menu.

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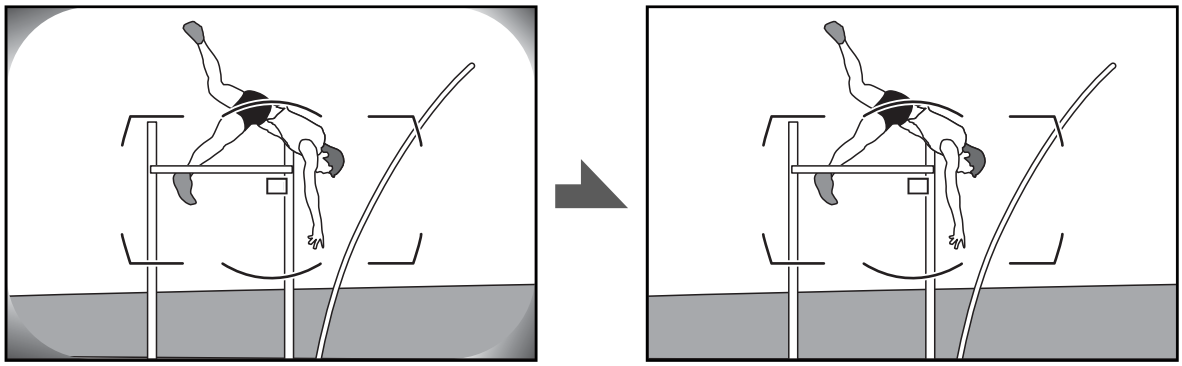
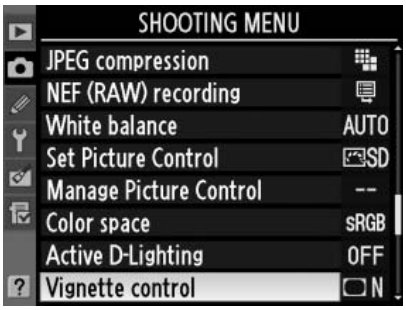
Image Quality: Vignette Control

You may notice a drop in peripheral illumination (vignetting) with certain lenses, particularly at maximum aperture. This can be corrected using the **Vignette control** option in the shooting menu.



Vignette control: *Select* **Vignette control** *in the shooting menu and choose* **High**, **Normal**, *or* **Low**



Notes

Vignette control is available from camera firmware version A 1.10/B 1.11 (some lenses can only be used with firmware version A 2.00/B 2.00 or later). It can be used type G and D lenses only (either alone or with AF-S/AF-I teleconverters) but is not available with DX-format or PC lenses or when FX-format lenses are used with the DX-format crop.

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Lens Options: Vibration Reduction (VR)

The D3 supports vibration reduction with VR lenses. Turn vibration reduction off when shooting at fast shutter speeds. Other vibration reduction settings may result in slower frame advance rates and increased shutter lag.

The table on the following page lists the recommended settings for different subjects. **ACTIVE** and **TRIPOD** vibration reduction are available with the following lenses; other VR lenses support only **ON** and **OFF**:

ACTIVE

- AF-S VR Zoom-Nikkor ED 70–200 mm f/2.8G (IF)
- AF-S VR Zoom-Nikkor ED 200–400 mm f/4G (IF)
- AF-S VR Nikkor ED 200 mm f/2G (IF)
- AF-S VR Nikkor ED 300 mm f/2.8G (IF)

TRIPOD

- AF-S NIKKOR 400 mm f/2.8G ED VR
- AF-S NIKKOR 500 mm f/4G ED VR
- AF-S NIKKOR 600 mm f/4G ED VR

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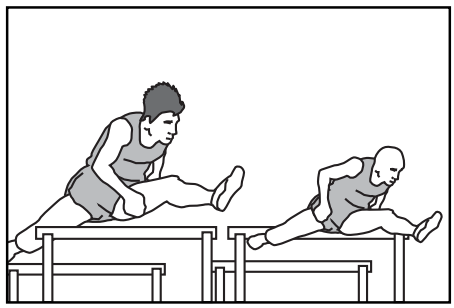
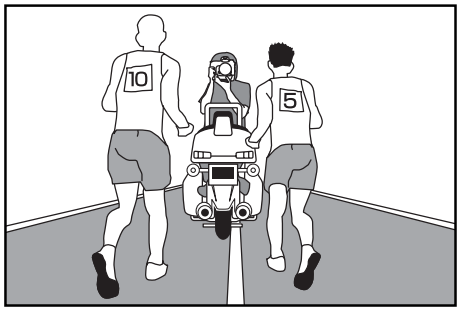
VR mode	Suggested for	Not suggested for
OFF	Moving subjects (e.g., shutter speeds of 1/500 s or faster) 	—
NORMAL (ON)[1]	• Stationary subjects • Panning shots of moving subjects	Subjects moving too fast to frame using panning
ACTIVE[1]	Photographs taken from a car, boat, helicopter or other unstable platform. 	Panning shots of moving subjects
TRIPOD	Photographs taken with a tripod.[2]	Monopod or hand-held photography

1. Can be used both for hand-held shots and with a monopod.
2. Choose **NORMAL** when using the tripod as a monopod.

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Lens Options: Options for Long Lenses

The table below describes the focus modes available with the following lenses:

- AF-S NIKKOR 400 mm f/2.8G ED VR
- AF-S NIKKOR 500 mm f/4G ED VR
- AF-S NIKKOR 600 mm f/4G ED VR

Mode	Description
A/M (autofocus priority)	Choose when focusing primarily with autofocus. Manual focus will only be activated if the focus ring is rotated a large amount. Prevents manual focus from being activated accidentally.
M/A (autofocus with manual priority)	Manual focus is activated whenever the focus ring is used, making it easy to use manual focus in autofocus mode.
M (manual focus)	The lens can only be focused manually.

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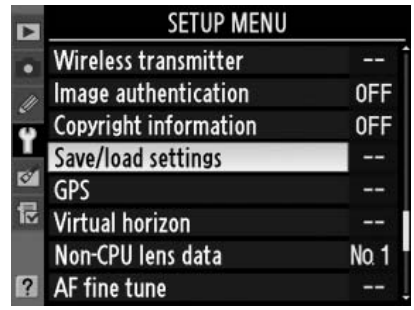
Camera Settings: Sharing Settings



Select **Save/load settings** > **Save settings** in the setup menu to save current camera settings to the memory card in Slot 1 (if the memory card is full, an error message will be displayed). Saved settings can loaded into any D3 camera using **Save/load settings** > **Load settings**, allowing the same settings to be shared among multiple cameras (note that **Load settings** is only available if the memory card in Slot 1 contains saved settings).

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